UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

April 21, 1999

Steve Ritchie
Deputy Director
CALFED Bay-Delta Program

Dear Steve:

At the interagency meeting on water quality hosted by CALFED staff on March 29, the agencies agreed to step up work on planning implementation for CALFED priority water quality actions. To begin this process, the agencies were asked to: (1) provide information on their roles in the water quality arena and (2) comment on the program actions in the Phase II Report, the draft "early implementation bundles" document, and the Water Quality Technical Appendix. This letter provides an initial response.

Generally, we believe CALFED has done sufficient work on identifying and assessing priority problems to move to implementation planning. Therefore, we have not comprehensively critiqued all of these documents. Rather, in conjunction with the state agencies, we have begun to work on implementation planning. We are suggesting a format for implementation planning based on the matrix format of the state's Nonpoint Source Management Plan and are currently focusing on completing matrices for selenium, mercury, and pesticides. These efforts will outline implementation strategies which coordinate the roles and resources of various agencies for each priority problem. We will offer these draft implementation strategies as a starting point for further discussion with other agencies and stakeholders.

EPA roles in water quality

Ambient water quality

EPA engages in a broad range of programs which protect or improve surface and ground water quality. Within the scope of the Clean Water Act are such activities as Section 404 permit reviews and enforcement, National Pollutant Discharge Elimination System (NPDES) permit oversight, compliance assistance, and water quality standards development and approval. These programs are generally conducted in conjunction with the State-- for example, working with the Regional Water Quality Control Boards on water quality assessment, standards development, and implementation planning. EPA conducts a number of programs which channel funds to the State to support these activities. Additionally, EPA has programs and authorities under other laws,

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including (but not limited to) the Resources Conservation and Recovery Act; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, or "Superfund"); the Federal Insecticide, Fungicide, and Rodenticide Act; Toxic Substances Control Act; and the National Environmental Policy Act.

As we proceed with implementation planning, EPA and the State will identify more specifically how we can use these programs. However, for the purposes of this letter, we would like to provide additional detail on activities addressing impaired water quality.

Section 303(d) of the Clean Water Act requires states to identify water bodies that do not or are not expected to attain water quality standards. Water quality standards include numeric criteria, narrative criteria, waterbody uses, and anti-degradation requirements. For the waters identified or "listed" under section 303(d), the State must develop "total maximum daily loads," or TMDLs. The TMDL can be expressed in mass/time, toxicity, or other metric which describes the assimilative capacity of the receiving water. The TMDL is a numeric target which when achieved will result in attainment of water quality standards. The TMDL includes allocations (e.g., allowable pollutant loading) for both point and nonpoint sources.

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The TMDL itself does not impose new implementation requirements, but provides a focus for improved implementation to achieve the specified target, thereby ensuring that water quality standards are attained. Along with the TMDL, the State will develop implementation plans. These plans describe the specific measures to be undertaken to achieve the point and nonpoint allocations established by the TMDL. For point sources, the allocations are implemented through NPDES permits, while nonpoint source allocations are implemented through a wider range of authorities and programs as described by the State's Nonpoint Source Management Plan. EPA advises that the TMDL nonpoint source implementation plan include the following elements:

- a description of control measures and actions,
- a time line which includes interim milestones,
- a discussion of what reasonable assurance there is that measures will be implemented,
- a description of legal authorities that may/ will be used in implementation,
- an estimate of the time needed to attain water quality standards,
- a monitoring plan and adaptive management process which clearly explains how measures will be modified if milestones are not met or practices are not effective,
- a demonstration of adequate funding to implement the plan.

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California's Nonpoint Source Management Plan-- adopted in 1988-- is currently being upgraded to improve the state's efforts to address nonpoint source pollution and to comply with new federal requirements. While the upgraded plan will continue to emphasize the use of the least stringent implementation option (e.g., voluntary rather than regulatory it is expected to provide for the increased use of more stringent measures when timely water quality improvements have not been achieved through the other approaches. Primarily through the Porter-Cologne Water Quality Act, the State has the authority to use more stringent approaches to eliminate water quality impairments associated with nonpoint source pollution. TMDLs related to nonpoint source pollutants will provide a framework for the state to use more stringent approaches.

EPA will work with you to identify activities for the implementation strategies that related to TMDLs and nonpoint source controls.

Drinking water:

Under the Safe Drinking Water Act (SDWA), EPA promulgates national drinking water standards (including conducting the necessary supporting research on health effects and treatment technologies), provides financial assistance to states in the form of grants, participates in enforcement actions, and provides technical assistance to states and drinking water providers. In California, EPA supports the Department of Health Services (DHS) in its role as the primacy agency for implementation and enforcement of EPA's drinking water regulations. With respect to protection of drinking water source quality, EPA requirements support DHS's watershed sanitary survey program to identify and address significant sources of contamination affecting surface water based utilities. In addition, the SDWA requires DHS to assess the vulnerability of drinking water sources to contamination under its source water assessment and protection program. The EPA-funded DHS Drinking Water State Revolving Fund can be used to support certain source water protection activities undertaken by utilities.

EPA can provide to the CALFED water quality program the results from studies by EPA and others on drinking water health effects, treatment technologies for drinking water contaminants and disinfection byproduct precursors, and protection strategies for source waters. In addition, EPA can promote research requests from CALFED to the national drinking water research program.

EPA is especially interested in integrating activities pursuant to the Clean Water Act and Safe Drinking Water Act to protect and improve source water quality for drinking water beneficial uses. The CALFED program can benefit from the substantial overlap between drinking water issues and ambient water quality issues. The greatest overlaps are with respect to pathogens (which can be addressed through NPDES permits and non-point source pollution prevention activities), nutrient load reductions, and agricultural drainage reduction (which will reduce salinity and bromide).

Water Quality Programmatic Actions (from the Phase II Report):

EPA generally supports the water quality actions identified in the Phase II document (pp. 97-100). However, there are several actions listed under item 12, "drinking water improvements" (pp. 99-100), that should be changed. In addition, we have added another item we consider to be of critical importance, and we have recommended deleting one entry.

- ~~Study~~ Incorporate, as appropriate, the results of research on brominated and chlorinated disinfection byproducts at water treatment plants and implement incremental improvements as warranted (yr 1-7).
- ~~Perform~~ Incorporate, as appropriate, the results of research on ~~public health effects studies, as needed, to more specifically identify the potential~~ health effects of bromide related disinfection byproducts (yr 1-3).
- ~~Investigate, as needed,~~ Incorporate, as appropriate, the results of research on advanced treatment technologies for the removal of salt, bromide, total organic carbon, and pathogens in urban water supplies (yr 1-7).
- ~~Relocate~~ Study the potential effects and feasibility of relocating Barker slough intake (yr ~~7+~~ 1+).
- Delete: ~~Develop a plan sufficient to meet forthcoming EPA and Department of Health Services standards for brominated disinfection byproducts (by yr 7)~~.
- Add: Determine sources and loadings of constituents of concern for drinking water, including pathogens, nutrients, salinity and TOC within the Delta and in Delta tributaries. Analyze significance of sources and loads for treatment of drinking water (yr 1-3).

For the first three actions, there is no need for CALFED studies since EPA conducts and sponsors national research on these issues; CALFED's role will be to make appropriate use of information from the research. We have recommended deleting the second-to-last item because it is an activity which DHS will undertake regardless of the CALFED Program. We have added the last item because adequate understanding of sources and loads of constituents of concern is needed before we can develop and prioritize mitigation actions.

Actions included in the early implementation bundles may need to be revised to reflect the results of the strategic implementation planning process. As previously stated, we are working with the Regional Water Quality Control Boards to begin this process for mercury, selenium, and pesticides, and draft matrices will be available shortly. We have also been consulting with DHS on actions to improve drinking water quality. Our preliminary input is included as an attachment to this letter.

Water Quality Program Technical Appendix

The February 1999 revised draft CALFED Water Quality Program credibly describes the problems to be addressed and offers reasonable approaches to correct these problems. However, the level of detail is in some cases insufficient to prioritize, plan, and implement the most useful

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activities in particular areas. We believe that the next steps in the development and implementation of the CALFED water quality program require the further definition, analysis, and prioritization of the various actions described in the revised draft. The criteria suggested by Rick Woodard will be useful in this next step. Again, we suggest using the familiar format of the state's Nonpoint Source Management Plan to display the implementation information.

Next steps

In the coming months we must pay special attention to enlisting the involvement and support of the agencies and their staff responsible for implementing the priority programs. The approach taken by CALFED in 1998, using ad hoc teams of agency sstaff and stakeholders from the Water Quality Technical Group to develop problem statements and identify possible solutions, was effective in shaping the Water Quality Program as it exists today. Small teams with appropriate implementation and assessment expertise may be a productive format for the coming tasks. We will need to identify and coordinate technical and funding resources to do this work. To supplement the strong public participation base which CALFED has developed, agencies with programmatic experience can help ensure effective stakeholder involvement.

We appreciate the high quality effort of the CALFED Program staff to date, and look forward to working together in the coming months.

Yours truly,

Carolyn Yale (for KS)

Karen Schwinn
Associate Director
Water Division

attachment